



CLEAN VERSION

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1. An environmentally compatible insect deterrent composition that is non-toxic and safe for humans comprising, a solution or dispersion of a surfactant, said solution or dispersion is a liquid that is adapted to coat out onto an insect, said surfactant being present in an amount effective to interfere with vital functions of the insect and a soluble or dispersible thickening agent that is non-toxic and safe for humans admixed therewith, such that the insect is debilitated or killed thereby when the composition is applied to the body of the insect so as to become coated thereon.

*BD*

6. The composition of claim 1 including a source of biocompatible cations that are non-toxic to humans selected from the group consisting of the alkali metal ions of potassium and sodium, the alkali-earth metal ions of calcium and magnesium and a water-soluble or dispersible cation that contains boron or copper.

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8. The composition of claim 1 wherein the composition includes [a thickening agent and] a source of cations that is biomedically safe for humans.

9. The composition of claim 1 including a biocompatible preservative that is non-toxic to humans for extending the shelf life thereof

17. A method of debilitating or killing insects comprising the steps of, providing an environmentally compatible insect deterrent composition devoid of insecticide that is non-toxic and safe for humans comprising a solution or dispersion of a surfactant, maintaining the solution or

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dispersion as a liquid that is adapted to coat out onto an insect, providing an amount of the surfactant that is effective to interfere with vital functions of the insect, and applying the composition to the body of the insect so as to become coated thereon such that the insect is debilitated or killed thereby.

18. The method of claim 17 including the step of admixing a soluble or dispersible thickening agent therewith that is non-toxic and safe for humans.

19. The method of claim 18, including the step of providing as the thickening agent a water-soluble or water-dispersible carbohydrate for increasing the viscosity of the composition.

20. The method of claim 17, including the step of providing as the surfactant an organic surfactant selected from the group consisting of non-ionic, amphoteric and cationic surfactant.

21. The method of claim 18 including the step of providing as the thickening agent, a member selected from the group consisting of protein, carbohydrate and water-soluble or water-dispersible synthetic polymer.

22. The method of claim 17 including the step of providing a source of biocompatible cations that are non-toxic to humans selected from the group consisting of alkali metal ions of potassium and sodium, the alkali-earth metal ions of calcium and magnesium and a water-soluble or water-dispersible cation that contains boron or copper.

23. The method of claim 17 including the step of applying the composition to the body of the insect by forming the composition into a spray and spraying the composition into the air to form an aerosol that can coat out onto the surface of the insect.

24. The method of claim 17 including the step of providing a source of cations that is biomedically safe for humans.

25. The method of claim 17 including the step of providing a biocompatible preservative therein that is non-toxic to humans for extending the shelf life thereof.